

Time on Task Test Plan

“LoL Dream Team” vs “teamfind”

2015-10-19
Version 1.0

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A Human -Computer Interaction (CSCE 6352) class project at Vanderbilt University

Comment [AJA1]: This was the name of my study at Kodak. Yours should be a usability study.

I pledge to pursue all academic endeavors with honor and integrity. I understand the principles of the Honor System, and I promise to uphold these standards by adhering to the Honor Code in order to preserve the integrity of Vanderbilt University and its individual members.

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1. Purpose and Objectives

Purpose — The purpose of the time on task study is to evaluate the time required for League of Legends players to register their team in our “LoL Dream Team” system, the time required for them to find a good team to join using our system, and the time required to do the same tasks on a comparable commercial system (teamfind.com). Each user will first use one system, then the other (with order varying). Time on task information will be gathered for each user, for each system, for each task.

Comment [AJA2]: You should probably be looking beyond time to complete the tasks to errors as well.

Objectives — Objectives for the activity are:

1. To identify the time required to find and join a team using the commercial system.
2. To identify the time required to find and join a team using our system.
3. To identify the time required to register a team using the commercial system.
4. To identify the time required to register a team using our system.

2. Test Procedure

Summary of procedure — The plan for conducting the time on task study and collecting data is to introduce and orient representative League of Legends players to both team-matching systems (each immediately before use), instruct them on the current high-level task (e.g. “create a team using this system”), capture the time required to complete the tasks, collect demographic data, compile findings, and determine conclusions.

Place and time — Each participant will use the systems individually. The session will be held in Featheringill Hall, room 314. The usability test is expected to take 20-40 minutes for each participant.

3. Participants

Test participants — Since the original stakeholders are not physically located near the researchers, participants will be found by posting a flyer and by contacting the Vanderbilt League of Legends Society.

Comment [AJA3]: You can't do that. Your study is not sanctioned by the IRB because it is a class project. You can however, solicit people from the LoL society.

They should have the following skills, experience, and characteristics:

- Actual League of Legends players.
- Various levels of experience.
- No specific gender or age.
- Normal dexterity with at least one hand, either right or left, adequate for using a mouse cursor positioning device.
 - If the participant is left-handed, they will be asked to bring a mouse. Other participants may bring a mouse if they so desire.
- Willingness and enthusiasm to freely give opinions about good and bad features of the software being used and tasks being performed.

Compensation — The compensation for participants will be a \$10 gift card.

Comment [AJA4]: You do realize that you don't have to pay them right?

4. Site

Requirements for facility — The site for the time on task study will be Featheringill Hall room 314. This location will have the following capabilities:

- A quiet seating area with a flat surface suitable for a laptop and mouse.

5. Experimental Design

The design of the experiment is a within subjects design.

Independent variables — We will categorize the participants according to the following independent variables:

- Range of League of Legends experience (number of games, highest rank achieved)
 - Self-reported estimates, and verified by looking up their self-reported username with the League of Legends API.
- Gender—male, female.
- Age range.

Dependent variables — Quantitative performance measures for the validation testing will include some or all of the following:

- Time required to complete each task (4 in all, 2 for each of 2 systems).

Comment [AJA5]: The two interfaces are independent variables as well.

6. Resources and Preparation

Equipment — Equipment needed for the validation test includes:

- A computer for the user to use, with its screen recording as video.
- Additional hardware (same laptop or possibly phone) for recording audio.
- A mouse (right-handed) and a mouse-pad.

Materials — Materials needed for the test include:

- The rough script below in the “Check List” section.
- Confidentiality agreement.
- Background characteristics questionnaire.

Comment [AJA6]: Technically you should not be recording audio. It is hard to get that approved generally.

Comment [AJA7]: You should also have questionnaires that you give them after they use each system and at the very end of the evaluation.

7. Data Collection

Sources of data — The sources of data for time on task data collection are:

- Video of computer screen.
- Audio of participants and researcher.
- Notes from researcher.
- Background demographic questionnaires.

Data topics - The data collection topics will include:

- Time required to complete each task.

8. Data Analysis

Purpose — The purpose of data analysis is to compare the time required to complete tasks on the two systems (ours and the commercial system). The sample size is not large enough to apply parametric or non-parametric statistical analysis of variance with validity, but some descriptive statistics of central tendency are appropriate.

Comment [AJA8]: You still need to do this for purposes of the class.

Activities — Data analysis activities are:

- Review videos to capture the time required to complete the tasks.
- Compile into a spreadsheet, with one row per (anonymized) user, 4 task columns (one for each system-task combination), and a Boolean column for which system was used first.
- Compile descriptive statistics of the data, such as means and standard deviations, and graph the results.

Comment [AJA9]: This will take a REALLY long time. You should be recording the times as the evaluation happens.

9. Deliverables

The following products of the time on task study will be delivered:

- Timing data—raw data, compilation, descriptive statistics, and graphs.
- Report describing results and conclusions.

Comment [AJA10]: No raw data. It should all be compiled data

10. Schedule

Schedule for the study — The schedule for preparation and conduct of the time on task study is:

Pilot tests	Oct 27-Nov 5, 2015
Usability test data collection	Nov 9 – Nov 17, 2015
Data analysis completed.....	Nov 24, 2015
Deliverables provided	Nov 30, 2015

Previous schedule for the study – Modified to reflect the fact that participants should be co-located with researcher (requiring new participants to be found)

October 12 – 21	Alpha Test with 2-3 stakeholders Modify Prototype based on Alpha Testing Recruit 10-20 Volunteer Stakeholders for
Experiment	
October 22	User Test Plan Due
October 24	User Testing
November 30	Final Project Due

Schedule for data collection — The schedule for conducting the data collection is shown below.

Orientation	3 minutes
Demographic Survey	3 minutes
System 1	10 minutes
Post-System Survey 1	3 minutes
System 2	10 minutes
Post-System Survey 2	3 minutes
Questionnaire/debriefing	8 minutes
TOTAL	40 minutes

Comment [AJA11]: This is probably too long.

11. Operational Scenarios

Find a team with system (ours or commercial):

The subject will be told to imagine they are looking for a new team to join, and told to do so using the system. No further instruction will be given unless needed, and if further instruction is given it will be noted. The task will be considered complete when the user receives verification that they sent a request to join a team.

Comment [AJA12]: You need to have the exact script for what the participants will be told.

Register a team with system (ours or commercial):

The subject will be told to imagine they are looking for new members for their current team, and told to register their team with the system. No further instruction will be given unless needed, and if further instruction is given it will be noted. The task will be considered complete when the user receives verification that they have registered.

Review Applications to a team with system (ours or commercial):

The subject will be told to imagine they are a different team, and imagine that they are looking for a new member for their team. No further instruction will be given unless needed, and if further

instruction is given it will be noted. The task will be considered complete when the user receives verification that they have accepted an application.

12. Check List

Supplies

Mouse
Computer
Copies of questionnaire
Pencils and paper for researcher notes

Steps

Computer on
Web pages corresponding to the two systems open
Protocol
 Welcome participant
 Give overview
 Sign consent forms (both confidentiality & video consent)
 Demographic Questionnaire
 Questions before beginning?
“Find a Team” task on System 1
“Register a Team” task on System 1
“Review Applicants” task on System 1
“Find a Team” task on System 2
“Register a Team” task on System 2
“Review Applicants” task on System 2
After scenario give them the questionnaires

Demographic questionnaire
Debriefing

Comment [AJA13]: Demographic questionnaire goes here

Comment [AJA14]: You should be giving them a questionnaire after using the system to assess how easy it is to do the tasks and their perception of how long it took to do the tasks.

Script

"We are conducting a study on the efficiency of websites that help League of Legends players find teams to join, and help teams find players. We invited you to participate in this study because, as a League of Legends player, you represent the type of user who might benefit from a product like this. The purpose of the session is not to evaluate your performance but to evaluate the websites."

"We will be recording video, of the screen only, during this session. This is for data analysis purposes only, and your personal identity will not be associated with any results from this study; a number, for instance 7, will identify you for the purposes of our analysis instead."

*{Sign confidentiality agreement and consent.}
{Demographic Questionnaire}*

Comment [AJA15]: Demographic questionnaire here.

"You will use this laptop and mouse."

"You will play the part of a player looking for a team, and the part of a team looking for a player. You will do this for both websites."

"Today we would like you to "Talk Aloud" while you work. During your work you should say out loud what you are thinking. You should offer as many comments as you can about what you're doing, what you see on the screen, and your opinion about good and bad features. If you don't know what action to take, I can give you some advice, but I won't offer any help unless you really need it. Do you have any questions before getting started?"

-----Begin Tasks-----

"First, use this website to find a team, as if you were really looking for a new team to join"

...

"Ok, now use this website to register a team, as if you had a team and were really looking for new team members"

...

{log in to prepared team for them}

"Ok, now review applications to this team, as if this were your team and you were really looking for new team members"

...

"Ok, you are done with that website now."

{website survey}

{researcher changes website}

"Now, use this website to find a team, as if you were really looking for a new team to join"

...

"Ok, now use this website to register a team, as if you had a team and were really looking for new team members"

...

{log in to prepared team for them}

"Ok, now review applications to this team, as if this were your team and you were really looking for new team members"

...

{website survey}

{post survey}

**Dream Team: paradoxTitans@gmail.com password: Foo1234

teamfind: keyboardslam password: v*72

Post Survey (For opinions about systems and background)

https://docs.google.com/forms/d/1i87Qc_b5-FOdWOSRaAgEhsFqpLv8U4GXkEPk6VC2S3E/viewform

We intentionally *do not* review the individual questions with the participant. In fact, we disable audio and video recording for this portion, and remove the researcher to a nearby area. We made it clear that even the researcher would not know who submitted which form, hoping to make the participant feel comfortable being completely honest. This is because the participant might suspect that the researcher is associated with one of the two websites, and they might have an idea as to which website that is.

Confidentiality Agreement and Consent Form

Use Vanderbilt IRB format

Comment [AJA16]: Do not name the systems in your descriptions to the participants or on your questionnaires. You need to track which system they used first.

The last four Questions get asked at the end of the session. You have to label the ends of the scales clearly where one is very negative and one is very positive,.

Remove the question about response truthfulness. That is not good practice.

Comment [AJA17]: You do need to ensure that they answer all questions, expect perhaps the open ended questions.

Comment [AJA18]: Where is it?

{0 minutes}

Training Guide *{Session procedure plan for session coordinator.}*

No Training on either system

General Overview Debriefing:

{Remember to write the participant's responses to your clarification or debriefing questions down.}

1. Ensure that the participant has answered all questions on the final questionnaire.
 - The Google Forms submission confirmation page says “Response recorded. Please leave this page open, so that the researcher can verify that you completed the survey. You should contact the researcher now.” However, we will also take their word for it if they claim to have completed it.
2. Compensate the participant and thank them for their time.